

DOCKET NO. 2011-271 -E

Application of Duke Energy Carolinas, LLC for Authority to Adjust and Increase Its Electric Rates and Charges

**REBUTTAL TESTIMONY OF
BARBARA G. YARBROUGH FOR
DUKE ENERGY CAROLINAS, LLC**

PUBLIC VERSION

1 **Q. PLEASE STATE YOUR NAME, ADDRESS, AND POSITION WITH DUKE**
2 **ENERGY CAROLINAS, LLC.**

3 A. My name is Barbara G. Yarbrough. My business address is 526 South Church Street,
4 Charlotte, North Carolina. I am Rates Director for Duke Energy Carolinas, LLC (referred
5 to hereinafter as “Duke Energy Carolinas” or the “Company”). I have responsibility for
6 assisting in the development, implementation, and proper administration of the
7 Company’s rate schedules and service regulations, as well as administering the Public
8 Service Commission of South Carolina’s (the “Commission”) Rules and Regulations. I
9 also am responsible for responding to customer inquiries including those directed to the
10 South Carolina Office of Regulatory Staff (“ORS”).

11 **Q. PLEASE STATE BRIEFLY YOUR EDUCATION AND PROFESSIONAL**
12 **EXPERIENCE.**

13 A. I am a graduate of the University of North Carolina at Greensboro. I joined Duke Power
14 Company (now known as Duke Energy Carolinas) in 1974, and since 1979 I have held
15 several positions in the Company’s Rates and Regulatory Affairs Department. I have
16 testified before the Commission and the North Carolina Utilities Commission (the
17 “NCUC”) in customer complaint and other proceedings.

18 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

19 A. The purpose of my rebuttal testimony is to respond to direct testimony of some of the
20 witnesses who testified during the public hearings and expressed concerns about their
21 electric account or service.

22 **Q. PLEASE DESCRIBE THE EXHIBITS ATTACHED TO YOUR TESTIMONY.**

1 A. Yarbrough Rebuttal Exhibit 1 uses customer billing history information, including kWh
2 use per month, average use per day, and weather to demonstrate how the number of days
3 in a billing cycle and the weather can affect a customer's bill. Yarbrough Rebuttal
4 Exhibit 2 presents the same information in graphical format as Yarbrough Rebuttal
5 Exhibit 1.

6 **Q. WERE YARBROUGH REBUTTAL EXHIBITS 1 AND 2 PREPARED BY YOU**
7 **OR UNDER YOUR SUPERVISION?**

8 A. Yes, they were.

9 **Q. ONE OF THE WITNESSES FROM GREENVILLE SPOKE ABOUT AN**
10 **ADDITIONAL CHARGE ON HIS BILL AS IT RELATES TO CONVERSION OF**
11 **OVERHEAD ELECTRIC SERVICE TO UNDERGROUND SERVICE? CAN**
12 **YOU PROVIDE THE COMMISSION AN EXPLANATION OF THIS CHARGE**
13 **ON THE CUSTOMER'S BILL?**

14 A. Yes, since January 1992, as a result of the Commission's Order in the Company's 1991
15 rate case, certain fees paid to municipalities for the right to provide service within those
16 cities, were removed from base rates and charged only to the customers receiving service
17 within those municipal limits. At that time, Duke Power and approximately 60
18 municipalities operated under a Municipal Service Agreement under which the Company
19 paid the municipalities 3% of its rate schedule revenue. In January 1992, customers in
20 Greenville and other municipalities began seeing this charge as a separate line item on
21 their bill. Since that time, some of the municipalities have raised the fee. This fee is
22 collected by Duke Energy Carolinas and dispersed to the City of Greenville, and Duke
23 Energy Carolinas has no control over the amount of the fee. Duke Energy Carolinas

1 understands that the City of Greenville has raised the fee more than once, and we
2 understand the most recent increase was to provide revenue so the City could participate
3 in Duke Energy Carolina's Municipal Overhead to Underground Conversion program.
4 This program is designed to facilitate the conversion of overhead electric facilities to
5 underground facilities at the request of a municipality. Duke Energy Carolinas matches
6 the funds provided by the City up to 0.5% of annual revenue from kilowatt hour sales
7 within the municipal limits. The Company understands that a portion of the municipal
8 fees are designated to provide the City's portion of the match for these conversions.

9 **Q. WOULD YOU PLEASE RESPOND TO OTHER CUSTOMERS' TESTIMONY**
10 **PRESENTED DURING THE PUBLIC HEARINGS?**

11 **A.** Yes, I will address the issues of most customers individually.

12 [REDACTED] testified in [REDACTED] that she was concerned about potential
13 increases in her bill even though she has actually reduced her energy usage by more than
14 25%. Following the hearing, I provided [REDACTED] a summary of her monthly usage
15 compared to weather and recommended that she take our on-line energy audit to look for
16 other ways to save.

17 [REDACTED] testified in [REDACTED] expressing concerns about the interest rate on
18 customer deposits and not being able to sign a guarantor for her son's account. I
19 confirmed with [REDACTED] after the hearing that Duke does not earn 7% interest rate
20 on deposits and that I would follow up with our call center. I reviewed a recording of the
21 telephone call and the representative did, in fact provide incorrect information. Her
22 supervisor was contacted to provide corrective feedback to the representative. With
23 respect to the guarantor, our procedures require that a customer have service with us for

1 two years and have a good payment history in order to serve as a guarantor. After
2 reviewing [REDACTED] account and determining that she had been a customer for 14
3 months with perfect credit history, I agreed to accept her as guarantor for her son and we
4 refunded the deposit to her son.

5 [REDACTED] a postal service worker, spoke to me after her testimony. She is
6 aware that Duke Energy Carolinas mails disconnect notices to customers and is
7 concerned if postal service delivery is curtailed, that customers may not get notices in a
8 timely manner. I indicated that if postal service changes do occur, Duke Energy
9 Carolinas would work with the Office of Regulatory Staff and the Public Service
10 Commission to make changes in notification procedures if necessary. I also explained
11 that in addition to mailed notices, we also attempt to reach customers by telephone.

12 [REDACTED] testified at the [REDACTED] hearing about problems related to a customer he
13 was working with after a fire. Although [REDACTED] did not provide the name of the
14 customer, our power delivery representative spoke with [REDACTED] after the hearing
15 and has since had three meetings with him. At this point, we are waiting for a decision
16 from the customer on outside lighting before that work can be completed.

17 [REDACTED] testified at the [REDACTED] hearing about service problems dating back a
18 number of years but he indicated service had improved. Our records indicate that [REDACTED]
19 [REDACTED] home is located along a lake where there is considerable exposure, but there
20 have only been two outages affecting his home in 2011. One was due to a tree and
21 another due to a bird. Our personnel inspected the line near [REDACTED] home and
22 determined that a few trees needed cutting which we will do.

1 [REDACTED] a hog farmer, also testified at the [REDACTED] hearing with concerns about a
2 rate increase and he mentioned fluorescent lighting. Our account manager who works
3 with agricultural customers has contacted [REDACTED] to let him know about our energy
4 efficiency rebates for higher efficiency bulbs.

5 [REDACTED] testified at the [REDACTED] hearing with concerns about outdoor lighting
6 in the subdivision where she lived. Our power delivery representative, [REDACTED]
7 and I spoke with [REDACTED] and identified this location as the [REDACTED] subdivision.
8 A subsequent inspection did show that the glass had been broken in many fixtures and
9 was due to vandalism; the glass had been shot out. Repairs are underway and we plan a
10 meeting with the home owners association to determine whether a different fixture may
11 be more suitable.

12 [REDACTED] testified in [REDACTED] about the outage for an outdoor light that he felt was
13 off longer than necessary. Our records indicate that there was a problem with the
14 underground line rather than the light itself and this took longer (7 days) to repair.

15 [REDACTED] testified in [REDACTED] and expressed a concern about information she had
16 received during a telephone call. Although I was unable to locate the recording of that
17 call, I did speak with [REDACTED] about her account.

18 [REDACTED], [REDACTED] expressed concerns about the
19 electric bill and in particular how Duke Energy Carolinas could tell them what their bill
20 would be at a new location. I determined that Duke Energy had offered [REDACTED] the
21 Equalized Payment Plan to help manage the bills at the new location where she moved.
22 This meant that we informed [REDACTED] of the monthly EPP amount when she set up the
23 account, but in the eleventh month there is a true-up. [REDACTED]' first bill was during

1 the summer and being on EPP meant that there was a benefit in that she did not have to
2 pay the actual (higher) bill that month. I explained that [REDACTED] needed to continue to
3 review the EPP balance, but the bills have declined since the initial bill. [REDACTED] also
4 indicated she did not understand how the bills could be different in a different location of
5 the same size. I explained that even though the residences may be of similar size, the
6 former residence was a duplex, and the new residence is a mobile home, which is
7 typically less efficient. I encouraged both ladies to pay careful attention to thermostat
8 setting and energy usage this winter.

9 [REDACTED] testified in [REDACTED] and among other things, indicated a concern about the
10 deposit assessed to his business account, [REDACTED] Our records indicate that the
11 deposit was appropriately assessed pursuant to the Public Service Commission's rules,
12 and in addition, the Company has made several deferred payment agreements which are
13 not required for nonresidential accounts.

14 [REDACTED] testimony in [REDACTED] raised questions about [REDACTED]
15 account. She provided some information that indicated a change in account
16 responsibility. I researched the account and determined that [REDACTED] has lived at
17 [REDACTED] since 1978, but it appears that in 2009, the account was taken
18 out of her name in error, which would explain why she received a bill in a different name.
19 The situation was corrected within two weeks and billing resumed in [REDACTED]
20 name in June 2009. Duke Energy's representative Rick Mifflin will perform an energy
21 assessment for [REDACTED].

22 [REDACTED] testified in [REDACTED] and raised a question about his January bill often
23 being higher. I showed [REDACTED] his billing history for the previous three years which

1 indicated that due to the holidays, his January bill was typically longer than normal; in
2 2011 it was 34 days (December 8 – January 11). We also reviewed the fact that some
3 other bills were for less than 30 days. A difference of several days from one billing
4 period to another can lead to the wrong conclusion if the customer does not look at the
5 average kilowatt hours per day, along with changes in weather. The Company does not
6 believe the Christmas lights have a large impact on the January bills, but we do know that
7 some residents are often at home more during holidays.

8 [REDACTED] testified at the [REDACTED] hearing with a particular concern
9 about an outdoor light he said he had been billed for but was not on his property, and that
10 he was not satisfied with the refund he received after providing notice to Duke Energy
11 Carolinas. The only thing we have been able to determine is that there were two lights
12 billed on the account as far back as we have records, and it should have been obvious to
13 [REDACTED] that he was billed for two lights because the lights were listed as two
14 separate line items on the bill. The Public Service Commission's rule provides that if a
15 customer has been over charged and the period of time cannot be determined, a refund
16 shall be made for 12 months. If the period of time can be determined, the period of
17 adjustment is 3 years. In an effort to resolve [REDACTED] concerns, we have issued an
18 additional refund to cover the full 3 year period.

19 [REDACTED] testified at the [REDACTED] hearing expressing concern about events
20 surrounding a scheduled disconnection at her residence and about damages to her
21 appliances. I first investigated the events surrounding the disconnection that was
22 scheduled on July 19, 2011. Our records indicate that a disconnect notice was mailed
23 (included in the bill) and an additional notice was provided just in advance of

1 disconnection. Duke Energy Carolinas entered into a deferred payment agreement and a
2 payment was due by 5:00 p. m. on July 18, 2011. A written reminder notice was mailed
3 and a notice was personally delivered to the residence. Our contact employee who was
4 dispatched to disconnect the service reported to me that when he arrived at the [REDACTED]
5 residence he first knocked on the door, but there was no answer. He proceeded to the
6 meter and observed that there was no medical alert sticker on the meter base. Duke
7 Energy Carolinas has a process where customers can self-identify, through a form
8 provided by the utility if there is a medical condition in the household. We had no record
9 of a form being provided. I understand that the representative had removed the cover and
10 was about to disconnect service when [REDACTED] approached him. According to my
11 investigation, he agreed to stop what he was doing and contact the business office, but
12 there was a brief dispute because the representative did not want to leave [REDACTED] at
13 the meter in an unsafe condition while he made the call. He was able to contact the office
14 and service was not disconnected.

15 [REDACTED] also expressed concerns about damages that occurred due to an open neutral
16 condition and indicated a delay in receiving compensation. Our records indicate that the
17 event occurred on September 2009, but the first contact [REDACTED] made with us
18 regarding the damages was April 12, 2010. Our records indicate that some of the delays
19 were due to an electrician being unable to inspect the property as [REDACTED] was very
20 much occupied with her husband's medical condition. The Company did review all of
21 the damages, and paid the [REDACTED] Additionally, I observed that [REDACTED]
22 has above average electric bills, particularly during the winter. I have requested our

1 energy efficiency representative to contact her regarding recommendations on reducing
2 the usage in her home.

3 [REDACTED] also testified in [REDACTED] about her dissatisfaction with compensation
4 for damages at her home where the account is in her husband's name. This situation also
5 involved a failure in the neutral which caused damage to appliances. I recall [REDACTED]
6 testifying that she was paid around [REDACTED] but our records show that the [REDACTED] were
7 paid [REDACTED] directly, and an additional [REDACTED] was paid to three other parties who made
8 repairs, for a total compensation for damage of [REDACTED].

9 [REDACTED] testified at the [REDACTED] hearing with a concern about outdoor lighting at
10 her business. I understand that she was concerned that it took three weeks to change
11 lights to another size. We believe the request occurred during a period of storms we
12 experienced and that this may have caused a temporary backlog.

13 [REDACTED] testified in [REDACTED] with concerns about how she would pay increased
14 bills. She spoke with me and our energy efficiency representative Rick Mifflin. [REDACTED]

15 [REDACTED] indicates that her bills are high even though she has replaced all major appliances,
16 replaced windows and uses a programmable thermostat. Rick Mifflin discussed specific
17 energy efficiency measures completed so far and she believes she has done everything
18 possible except adding additional insulation to walls and ceiling. We will follow up with
19 [REDACTED] for an energy analysis.

20 [REDACTED] presented testimony in [REDACTED] indicating her bill was [REDACTED] per
21 month. I reviewed her account and determined that she did receive an initial bill in
22 February 2011 for approximately [REDACTED] but this bill was for 61 days, and our records

1 indicate that the residence is equipped with electric heat. Since February, 2011, however,
2 [REDACTED] bills have averaged [REDACTED] per month.

3 [REDACTED] testified in [REDACTED] regarding the use of her heating system and billing
4 concerns. Our energy efficiency representative, Rick Mifflin, spoke with [REDACTED] as
5 she seemed confused by recent events and was afraid to operate her heating system for
6 fear of creating bills she could not afford. Mr. Mifflin's investigation with apartment
7 management indicated that the gas heating system had been replaced with an electric
8 system; Mr. Mifflin has explained heat pump operation to her and encouraged her to use
9 the system to stay warm when the weather gets cold. Mr. Mifflin also obtained other
10 information about the apartment, which he provided to me for review. As a result, we
11 were able to change [REDACTED] account to the lower all-electric rates schedule RE.

12 **Q. DID YOU SPEAK WITH ANY OTHER CUSTOMERS DURING THE**
13 **HEARINGS WHO DID NOT TESTIFY?**

14 **A.** Yes. In several of the hearings, other customers asked question during breaks and after
15 the hearing. One customer was concerned about the amount of her bills, but my
16 investigation indicated that her swimming pool and a pool house she was using to run a
17 small business, were contributing to the higher than expected bills. I also provided
18 historical usage and weather information to other customers who spoke to me at the
19 hearings but did not testify. Many customers' fluctuations in billing can be explained
20 with changes in weather. I provided information such as that shown in Yarbrough
21 Rebuttal Exhibit 1 to some customers. It shows the impact of the number of days in the
22 billing cycle and the weather on the bill. Yarbrough Rebuttal Exhibit 2 is a graphical
23 depiction of the same data.

1 **Q. HOW IS DUKE ENERGY CAROLINAS HELPING CUSTOMERS MANAGE**
2 **ENERGY COSTS?**

3 A. Our energy efficiency programs have provided compact fluorescent light bulbs to
4 customers to help reduce lighting costs. Additionally, we offer rebates for high
5 efficiency air conditioning or heat pumps installed in new or existing residences. We
6 also offer an on-line energy audit so customers can make an assessment of their energy
7 usage and areas for improvement.

8 **Q. DOES THAT CONCLUDE YOUR PRE-FILED REBUTTAL TESTIMONY?**

9 A. Yes.

Title

Account Name

Address

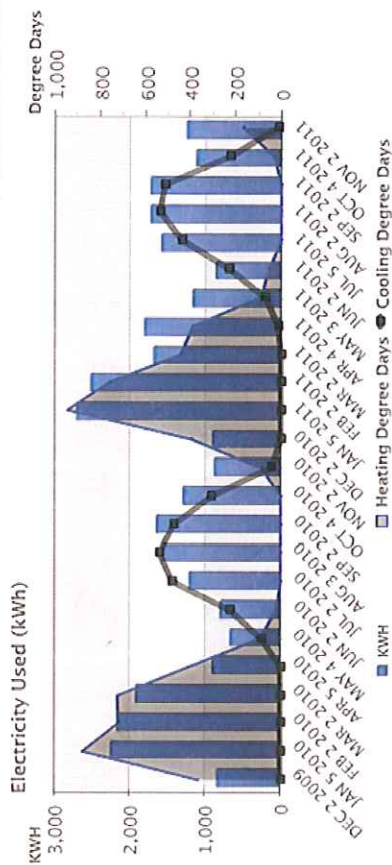
Account Number

Meter Number	Bill Date	Billing Days	Read Type	Electricity Used (kWh)	Avg. kWh/Day	Avg Daily Temp.	Heating Degree Days	Cooling Degree Days
31886773	11/2/2011	29 Actual		1246	43	59	164	16
31886773	10/4/2011	32 Actual		1127	35	70	34	222
31886773	9/2/2011	31 Actual		1730	56	81	0	514
31886773	8/2/2011	31 Actual		1720	55	82	0	538
31886773	7/5/2011	30 Actual		1576	53	79	0	440
31886773	6/2/2011	31 Actual		858	28	70	54	232
31886773	5/3/2011	30 Actual		1159	39	64	89	69
31886773	4/4/2011	31 Actual		1803	58	53	386	15
31886773	3/2/2011	28 Actual		1685	60	49	446	1
31886773	2/2/2011	28 Actual		2525	90	38	755	0
31886773	1/5/2011	34 Actual		2713	80	37	942	0
31886773	12/2/2010	31 Actual		887	29	52	398	0
31886773	11/2/2010	30 Actual		885	30	63	93	45
31886773	10/4/2010	30 Actual		1294	43	75	3	304
31886773	9/2/2010	30 Actual		1644	55	80	0	471
31886773	8/3/2010	32 Actual		1557	49	81	0	538
31886773	7/2/2010	30 Actual		1214	40	81	0	480
31886773	6/2/2010	29 Actual		791	27	71	19	219
31886773	5/4/2010	32 Actual		674	21	64	88	85
31886773	4/5/2010	31 Actual		894	29	51	410	0
31886773	3/2/2010	28 Actual		1916	68	39	722	0
31886773	2/2/2010	28 Actual		2160	77	39	718	0
31886773	1/5/2010	34 Actual		2250	66	39	875	0
31886773	12/2/2009	32 Actual		836	26	53	358	0

Energy Usage & Cost Details Graphs

Meter:

Select Graph Electricity Used (kWh)



Basic Billing Days Degree Days

Help

This graph displays a vertical bar graph with up to 24 months of Energy Usage & Cost Details. Select one of the 'radio buttons' to display another graphing option.

- Print: Use the "Print" button to print this entire page. To print just the graph picture, right click on the graph and select "Print".

Basic Graph

- Graph displays data for the energy parameter identified in the graph title.
- Select one of the radio buttons to display another graphing option.

Basic Graph with Billing Days

- Graph displays data for the energy parameter identified in the graph title.
- Shaded area represents the number of days in the billing period.
- Variability of non-weather-sensitive data can often be attributed to the difference in billing days.
- Example: There are 28 days in one billing cycle and 32 days in the next cycle. Assuming other factors are equal, you should expect about a 14% increase in energy in the later billing cycle.

Basic Graph with Weather Data

- Graph displays data for the energy parameter identified in the graph title.
- Shaded area represents the number of heating degree days and cooling degree days in the billing period (as indicated on the right axis).
- Heating degree days are an indicator of the demand that cold weather places on your heating system.
- Cooling degree days are an indicator of the demand that warm weather places on your cooling system.
- Weather is often a major factor in month-to-month variability in energy.
- "Degree Day" is calculated as the difference between the average daily temperature and a basis temperature of 65°F.
- Example: A winter day with an average temperature of 30°F has 35 heating degree days (and no cooling degree days); while a summer day with an average daily temperature of 85°F has 20 cooling degree days (and no heating degree days).